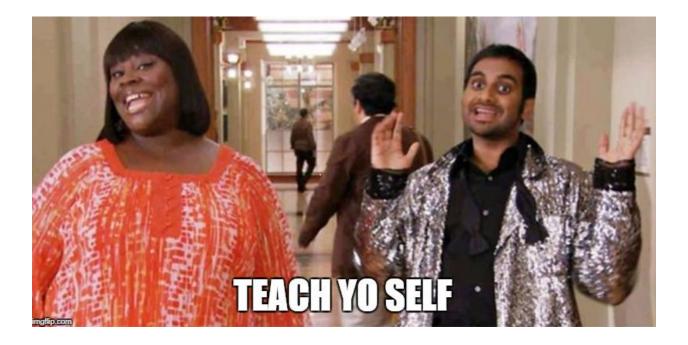


# **PROJECT TITLE: Graduate and Postdoctoral Teaching Experiences**

**PROJECT TAGLINE/CAPTION** (160 characters): A program to integrate a new opportunity for graduate students and postdocs interested in education to independently host their own undergraduate courses.

### IMAGE:



Primary Contact: Pavan Kota

Primary Contact Email: pkk1@rice.edu

Primary Contact Department: Bioengineering

Name of Group/Organization: Graduate and Postdoctoral Teaching Experiences

# **PROJECT DETAILS**

Provide a description of the project.

Similar to Student Taught Courses (STC) available to undergraduates, this is a program to create opportunities for graduate students and postdocs to host their own courses. This opportunity can integrate naturally with the Certificate in Teaching and Learning currently available for graduate students. Specifically, UNIV 500 can be the prerequisite for applying to host a course. This will not only create teaching opportunities for students potentially interested in academic careers, but it will also expand educational options for all students while giving them the opportunity to interact with students interested in niche areas. Courses will be 1 credit and graded as satisfactory/non-satisfactory and available in the Fall and Spring



semesters. Interested students will need to submit a proposal with a detailed lesson plan and budget for any supply costs for the course for approval by a committee in the office of Graduate and Postdoctoral Studies (GPS) or the Center for Teaching Excellence (CTE). Our team will publicize the opportunity and collaborate with the GPS and/or CTE.

We have reached out to Center for Teaching Excellence (CTE) at Rice about graduate student teaching opportunities, and we have been informed that there are ongoing discussions about possibly providing teaching opportunities for graduate students. The purpose of this proposal is to offer an idea for a structure of such a program and assistance in helping with the initial setup and testing of the idea. We are fully willing to work directly with the CTE or GPS to launch the project and assist in any way that we can.

# TIMELINE:

If the project will take place at a specific time and place, please give details. Is it a one-time event or a series?

UNIV 500 is offered in the Fall. The potential future opportunity to host a class can be stated in the syllabus and reiterated in class. The course currently has students draft a sample syllabus by the end. Interested students can optionally expand the assignment into drafting a sample course outline and supporting course materials (lectures, group activities, projects, reading assignments, etc.). If they choose, they may apply to host the course the following semester.

Students who have taken UNIV 500 and later decide to host a course may apply at the end of the Fall semester with the current UNIV 500 students, or in a similar Spring application cycle. New courses, if approved, will begin in the **first half of the following semester** (Part of Term course). The specific details of the timeline below can be adjusted in collaboration with CTE and GPS.

#### For New Courses:

**July-August**: Our team publicizes the opportunity periodically prior to Fall registration so that interested students can enroll in UNIV 500.

**Mid August**: We host a table at the Graduate Student Activities Fair and have one of our team members accompany the CTE representative for any graduate student orientation related events.

**October:** Interested students enrolled in UNIV 500 present course proposals for initial feedback from the instructor and are encouraged to solicit feedback from students to gauge interest.

#### Application Round 1:

**Early November:** Students in UNIV 500 submit their sample course outline and application to either the CTE or GPS for approval.

**End of Fall Semester:** Decisions are made for supported courses to be added to Esther for 1<sup>st</sup> half registration for the Spring.

# Application Round 2:

**Early March**: Deadline for the second round of applications for new courses, targeting a pilot run in the 1st half of the following Fall semester.



**End of March**: Decisions are made for supported courses to be added to Esther for 1st half registration for the following Fall.

# Course Continuation Timeline:

Once student teachers have a half-term of experience, they have the opportunity to apply to expand their course to a regular, full-semester offering. These approvals will be in place before registration opens for the following semester.

# For Continuation in the following Fall Semester:

**Mid March**: Student teachers apply by submitting course feedback from their students, an updated lesson plan to expand to a full semester of content, and a report of any feedback-driven changes they plan to make. For most, this will be shortly after the end of their 1<sup>st</sup> half 'Part Term Course.'

**End of March**: Decisions are made for supported, continuing full-time courses. Approved courses are added to Esther.

For Continuation in the following Spring Semester: Mid October: (same as above) Early November: (same as above)

### AUDIENCE:

Who is your target audience? (*e.g.* program-specific, interdisciplinary, or university-wide? Will undergraduates, faculty, staff, or postdocs be involved? Any off campus participants?)

This program is for <u>all</u> graduate students and postdocs interested in teaching opportunities. Interested students will need to submit a proposal with a detailed lesson plan and budget (for any supply costs for the course if applicable) for approval by GPS or CTE. The application process will ensure that proposed courses do not overlap significantly with existing Rice offerings and assess the students' preparation to host the course.

How many people do you anticipate will participate?

While we do not have survey statistics, we are aware that roughly one third of our cohort in Bioengineering is interested in supporting this initiative. Overall, having the opportunity to teach an independent course may increase student participation in the courses for the Certificate in Teaching and Learning.

Fall 2017 enrollment for UNIV 500 totaled 29 students. We estimate that the concurrent opportunity this initiative provides would double participation. This would result in an approximate maximum of 60 course applications each year.



MARKETING PLAN: How do you plan to publicize the project?

Weekly GSA announcements prior to key dates and deadlines, as well as a Facebook page will market the program to students. We will also host a table at the Grad Student Activities Fair.

### **ADVANCEMENT**

What are the goals of the project?

1.) Enhance teaching opportunities for graduate students and postdocs

2.) Widen learning options for all students (undergraduates and graduates) through an openended teaching program

3.) Bring together students with common interests in niche areas

Briefly explain the need for the project and how it will promote excellence in scholarship, training, and/or development?

**For student teachers**: The preparation involved in designing a course and conveying the information to students will develop broadly applicable communication skills. It also provides a valuable opportunity for students interested in academic careers. Hosting a course is a challenging pursuit that will push students to develop as educators in a way that goes a step beyond standard teaching assistantships.

The best way to develop an understanding of material is to teach it to others and answer critical questions. Giving graduate students and postdocs this opportunity will increase their confidence and expertise.

**For students**: Many topics simply cannot be covered by Rice's faculty due to time and availability limitations. There are many graduate students and postdocs interested in both technical and miscellaneous areas that would be interested in teaching such courses. Expanding the availability of learning options for students will provide them with a formal setting to engage in topics of interest with like-minded students.

We anticipate that this initiative would increase graduate student participation in the CTE's curriculum. Even if students change decide not to host a course after UNIV 500 for any reason, the experience in the course will help them be more effective TAs. This benefits both graduate students by developing their mentoring and teaching abilities while improving the learning experience for undergraduates.

If this is an existing project/event or a similar one exists, describe how the project/event is being expanded or enhanced.

Student Taught Courses (STC) is a great program, though currently only available to undergraduates. The purpose of this proposal is to expand this opportunity to graduate students and postdocs. Just as undergraduates are required to take COLL 300 prior to hosting an STC,



this initiative integrates well with existing curriculum for graduate students to provide an analogous opportunity.

If your proposal is for a pilot project, suggest how it might develop over a three-year period.

If successful, a process could be put in place for student teachers to alternatively host a shortterm "bootcamp" that could be hosted at any time in the year (e.g. a 4 week coding bootcamp). This could also entail refresher courses that help students get up to speed prior to the beginning of the semester. For instance, a faculty member who teaches a challenging introductory course could collaborate with a graduate student or postdoc to design a few week bootcamp to help incoming students brush up on fundamental concepts that will be used. This would help students coming from diverse backgrounds be at a similar level when the semester begins. Of course, this is just one example of a what a short-term "bootcamp" may look like.

Because of the collaboration involved between our group and the CTE and/or GPS, we are fully willing to work with all appropriate organizations to help this idea be implemented. We expect to tune the idea as we consult the relevant administrative groups to provide the best opportunity for all students involved.

Describe how you will measure the success and impact of this project. Please, provide quantitative targets, if possible.

As part of the design of courses, collection of feedback from undergraduates at the end of the semester will be mandatory. A general form will be used for all courses, though instructors will be encouraged to solicit personal feedback from students throughout the semester. This information will allow us to assess how effective these courses are at promoting the goals of the program and to tune criteria to weigh in future course applications.



# BUDGET

### Itemized Budget

Please, provide an itemized budget. List each item, a description, and the anticipated cost.

ltem	Description	Cost
Course supply fund	To be allocated by the application committee to approved student instructors each semester	\$1000
Total Expenses		\$1000/semester**

\*\*This budget represents a maximum that GPS or CTE would need to spend to support any required supply funds for the approved courses. It is plausible that all funds will not be used in a semester depending on the nature of the proposed courses. To clarify, our team does not need to receive any funding directly. This is our projected budget for the administrative organizations involved.

# Funds from other sources

Please, provide any information on funds from other sources that you have secured or potential funds that you plan to apply for.

Source	Status	Cost
GSA Enrichment Grant	Planned	
Grad Student Activity Grant	Planned	
Professional Development Grant	Planned	
SAPP Fund	Planned	
Total Amount		\$

Because this project requires logistical organization with and approval from the university to host new, official courses, we have not applied for outside funding yet. As soon as we are communicating with the appropriate staff and faculty, we will take the steps we can to secure funding. Additional funding would allow our team, GPS, and/or CTE to support more graduate student and postdoc hosted courses' required budgets.

If the project/event has been offered in the past, how was it supported?

Student Taught Courses is a program for undergraduates to host courses for other undergraduates. This is coordinated by the CTE and the Office of the Dean of Undergraduates. Students submit a proposal with the written support of a faculty member for approval and must take one course (COLL 300 – Pedagogy for Student Instructors) prior to applying.